



OTTO VON GUERICKE
UNIVERSITÄT
MAGDEBURG

EIT

FAKULTÄT FÜR ELEKTROTECHNIK
UND INFORMATIONSTECHNIK



LENA

Bachelor's thesis

for Ms./Mr. xx xx

Topic: Comparative analysis of the development of electromobility in Brazil and Germany: technical, economic and legal perspectives

Task:

The drive to reduce greenhouse gas emissions has prompted many governments to invest in various alternatives to achieve climate neutrality. One of these alternatives is the electrification of the transport sector. In Germany, for example, no new cars with combustion engines may be sold after 2035. This will lead to an accelerated renewal of the vehicle fleet through the promotion of battery electric vehicles (BEV), as hybrid and plug-in hybrid models will also no longer be marketed. In Brazil, electromobility faces several challenges in the initial phase, despite the high potential for generating energy from renewable sources.

In this context, this bachelor's thesis aims to conduct a comparative analysis of the current state of electric mobility in Brazil and Germany in order to investigate why its development is more advanced in Germany than in Brazil. To this end, the status quo, the structural framework conditions and the subsidies in both countries will be presented and compared.

The study has to cover the following points:

- Literature research and overview of the obstacles to electromobility
- Analysis of aspects influencing the development of electromobility in Brazil and Germany - differences and similarities
- Assessment of the challenges for a successful expansion of electromobility, considering technical, economic, and legal perspectives
- Documentation of the results

Magdeburg, xx.xx.2023

Date of edition: xx.xx.2023

Date of submission: xx.xx.2023

Supervisor: M.Sc. M. dos Santos Ortiz

1st examiner: Prof. Dr.-Ing. habil. M. Wolter

2nd examiner: Prof. Dr.-Ing. A. Lindemann

Prof. Dr.-Ing. habil. M. Wolter

Task tutor

Prof. Dr.-Ing. R. Leidhold

Chairman examination board